

REMARKS

The Official Action dated June 2, 2004, has been carefully considered. Applicant appreciates the Examiner's thorough review of the application. Consideration of the changes and remarks presented herein and reconsideration of the objections and rejections are respectfully requested.

By the present amendment, claims 1-4, 10, 11, and 14-18 have been amended, while claims 19 and 20 have been added. Support for the amendments and additions can be found in the specification, claims and drawings as originally filed. Accordingly, claims 1-20 stand pending in this application. As set forth below, it is believed that claims 1-20 are in condition for allowance. In addition, the title and abstract have been amended by the present amendment. It is believed that these changes do not involve any introduction of new matter, whereby entry is believed to be in order and is respectfully requested.

In the Official Action, the Examiner also indicated that the drawings are accepted for purposes of examination, but that formal drawings would need to be submitted when the application was allowed. Applicant believes that the filed drawings meet the formal requirements and because the Examiner does not provide any explanation as to why he believes the drawings to be informal, Applicant requests that the Examiner reconsider the currently filed drawings and accept them as formals. For the Examiner's convenience, Applicant has provided a copy of what he believes are the drawings as originally filed. In any event, it is understood that no corrections are required at this time.

In the Official Action, claims 1-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Seefried (U.S. Patent No. 6,336,825) or Nita (U.S. Patent No. 5,368,558) in view of Schüttlöffel (U.S. Patent No. 3,790,905) and Cohen (U.S. Patent No. 5,080,688) and Tein (U.S. Patent No. 3,617,109) and Pastor (U.S. Patent No. 4,088,116). The Examiner asserted that Seefried or Nita disclose waveguide devices. The Examiner noted that Seefried

and Nita do not teach a light guide body configured in an elliptical shape along the longitudinal axis. The Examiner also contends that Nita teaches a light transmitting body having a proximal portion and a distal portion, where the proximal portion is symmetrical with the distal portion.

The Examiner also asserted that Schüttlöffel teach an elliptically configured waveguide device. The Examiner contended that it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Seefried or Nita to include a waveguide device as shown by the Schüttlöffel reference. The Examiner also asserted that it would have been obvious to combine Tien with Seefried to teach that the light transmitting body includes a dielectric material. Moreover, the Examiner alleged that it would have been obvious to combine Cohen with Seefried or Nita to disclose a waveguide device having a light transmitting body made of a plastic material. Finally, the Examiner asserted that it would have been obvious to combine Pastor with Seefried or Nita to teach a waveguide device having a light transmitting body made of a glass material.

It is also important to note that the Examiner appears to indicate that claims 11-13 where a coating material is on at least one of the first and second surfaces of the waveguide device is not taught by any of the references cited by the Examiner. Accordingly, we have added claim 20 to include the waveguide device having a coating material on at least one of the first and second surfaces.

As will be set forth in detail below, it is submitted that the waveguide device of claim 1 is non-obvious and patentably distinguishable from the teachings of Seefried and Nita in further view of Schüttlöffel, Cohen, Tien or Pastor. Accordingly this rejection is traversed and reconsideration is respectfully requested.

As defined by claim 1, from which claims 2-14 depend, the present invention is directed towards a waveguide device including a light transmitting body having a first surface

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extending from a light source end to an image plane end, a second surface extending from the light source end to the image plane end, wherein the second surface substantially opposes the first surface, and a longitudinal axis defined between the light source end and the image plane end, wherein at least one of the first and second surfaces is extended in a direction non-parallel to the longitudinal axis.

Seefried discloses an electrical connector with electrically contacting contact pins or contact sockets such as plugs or couplings, which includes a device for deflecting light in preferred directions of the illuminating body emitting a light, in particular for the operating display of a illuminating body of electrical circuits in casting with view windows (col. 1, lines 25-32).

Nita discloses a catheter device insertable into a body lumen and incorporating a combined ultrasound ablation and endoscopic visualization apparatus (abstract). The catheter device generally includes an elongate catheter body including an ultrasound transmission member extending longitudinally therethrough having a proximal end connectable to an ultrasound transducer such that ultrasonic energy will pass through the ultrasound transmission member to the distal end thereof (abstract).

Schüttlöffel discloses a flexible waveguide for the simultaneous transmission of two perpendicularly disposed linearly polarized electromagnetic waves (abstract).

Tien discloses an optical-guiding apparatus of the type in which a dielectric body is bounded by a lower index dielectric medium and has only one dimension sufficiently small to produce guiding of the light is provided with simplified coupling to a source of a coherent light beam or a receiver or a utilization apparatus for the coherent light beam by being smoothly tapered to cut off in its thin dimension (col. 1, lines 39-45).

Cohen discloses a lens to be worn for the reduction of eye strain and fatigue where the lens includes a light transmitting plastic body having a convex shaped outer surface or

deflecting stray angular radiation (col. 4, lines 56-61).

Pastor discloses a radiant energy collector having a generally scroll-shaped configuration and exhibiting a hemispheric energy acceptance angle, where substantially all diffuse and direct radiant energy which is incident on the reflective surface of the collector is reflected toward an elongated energy conversion means (abstract).

In order for references to be relied upon to support a rejection under 35 U.S.C. § 103 they must provide an enabling disclosure, i.e., they must place the claimed invention in the possession of the public. *Glaxo Inc. v. Novopharm Ltd.*, 34 U.S.P.Q.2d, 1565 (Fed. Cir. 1995); *In re Payne*, 203 U.S.P.Q. 245 (CCPA 1979). Applicants find no teaching or suggestion by Seefried or Nita alone or in combination with Schüttlöffel, Cohen, Tien or Pastor of a waveguide device having first and second surfaces which extend from a light source end to an image plane end. As defined by the claims of the present invention, a waveguide device comprises a light transmitting body having a first surface, a second surface and a longitudinal axis, wherein the first and second surfaces extend from a light source end to an image plane end and at least one of the first and second surfaces is extended in a direction non-parallel to the longitudinal axis of the light transmitting body. Seefried, Nita, Schüttlöffel, Cohen, Tien and Pastor alone or in combination, fail to teach or suggest such a waveguide device. Moreover, Seefried or Nita alone or in combination with Schüttlöffel, Cohen, Tien or Pastor fail to teach a waveguide device where at least one of the first and second surfaces is extended in a direction non-parallel to the longitudinal axis of the light transmitting body of the waveguide device.

Furthermore, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992). Similarly, obviousness cannot

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be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive in supporting the combination. *In re Geiger*, 2 U.S.P.Q.2d 1276 (Fed. Cir. 1987). There must be some reason, suggestion or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination of the references. *In re Oetiker*, 977 F2d 1443, 24 U.S.P.Q.2d 1443 (Fed. Cir. 1993). Here, Applicant finds no such teaching, suggestion or incentive for the combination of Seefried or Nita with Schüttlöffel, Cohen, Tien or Pastor. One skilled in the art would not have been motivated to combine the varied teachings provided in Schüttlöffel, Cohen, Tien and Pastor, with the electrical connector as taught by Seefried and with the catheter device as taught by Nita. Neither Schüttlöffel, Cohen, Tien nor Pastor teach or suggest waveguide devices having first and second surfaces that extend between a light source end and an image plane end. The variances in the type of applications being disclosed by the apparatuses taught by these references would not motivate one skilled in the art to combine such references. The failure of the Schüttlöffel, Cohen, Tien and Pastor references to teach or disclose such waveguide devices and the failure of Seefried or Nita to suggest combining these references to provide such waveguide devices illustrates the hindsight being applied by the Examiner to combine such dissimilar references.

It is therefore submitted, that the presently claimed waveguide devices are non-obvious over and patentably distinguishable from Seefried and Nita in view of Schüttlöffel, Cohen, Tien and Pastor, whereby the rejection under 35 U.S.C. §103 has been overcome. Reconsideration is respectfully requested.

In the Official Action, claims 15-18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Knox et al (U.S. Patent No. 4,091,343) in view of Ionov (U.S. Patent No. 5,758,001). The Examiner asserted that Knox et al disclose an insulator waveguide directional coupler having a light source operable to produce electromagnetic energy. The

Examiner noted that Knox et al do not teach an elliptically configured waveguide device. The Examiner asserted that elliptically configured waveguide devices are very elementary teachings in optical art and such is taught by Ionov. The Examiner contended that it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have utilized the elliptically configured waveguide device of Ionov in the device disclosed by the Knox et al reference.

However, as will be set forth in detail below, it is submitted that the optical transfer system of claim 15 is non-obvious and patentably distinguishable from the teachings of Knox et al in further view of Ionov. Accordingly this rejection is traversed and reconsideration is respectfully requested.

As defined by claim 15, from which claims 16-18 depend, the claimed invention is directed towards an optical transfer system comprising a light source operable to produce electromagnetic energy and an elliptically configured waveguide device having a light transmitting body having first and second surfaces substantially extending between a first end and a second end, wherein the waveguide device is operable to receive the electromagnetic energy from the light source.

Knox et al disclose a directional coupler utilizing an insular waveguide transmission line, where the coupler includes first and second lengths of dielectric waveguide spaced from each other to provide a coupling region (col. 1, lines 17-23). Particularly, the Knox et al reference is directed to improving communications systems (col. 1, lines 15-16).

Ionov teaches systems for conjugating electromagnetic energy beams, more specifically, conjugating unpolarized or partially polarized beams (col. 1, lines 9-11). The system includes focusing optics for focusing beams into a SBS-active medium inside an asymmetric waveguide at an angle with respect to an axis of the waveguide, such that the focusing optics focus the beams and adjust the launching angle of the beams to achieve the

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optimum conditions for discrimination the modes, provides for maximum mode dispersion (col. 2, lines 55-61).

Once again, in order for references to be relied upon to support a rejection under 35 U.S.C. § 103 they must provide an enabling disclosure, i.e., they must place the claimed invention in the possession of the public. *Glaxo Inc. v. Novopharm Ltd.*, 34 U.S.P.Q.2d, 1565 (Fed. Cir. 1995); *In re Payne*, 203 U.S.P.Q. 245 (CCPA 1979). Applicants find no teaching or suggestion by Knox et al alone or in combination with Ionov of a optical transfer system including an elliptically configured waveguide device having a light transmitting body with first and second surfaces that extend between first and second ends. As defined by the claims of the present invention, an optical transfer system is provided that includes an elliptically configured waveguide device having a light transmitting body with first and second surfaces extending between first and second ends and operable to receive electromagnetic energy from a light source. Ionov teaches asymmetric waveguide devices which would not be considered to be elliptically configured where an ellipse is inherently symmetrical along its longitudinal and transverse axes. Moreover, Ionov does not disclose a light transmitting body of a optical transfer system having first and second surfaces that extend between first and second ends being operable to receive electromagnetic energy from a designated light source. As such, Knox et al and Ionov, alone or in combination, fail to teach or suggest such an optical transfer device.

It is therefore submitted, that the presently claimed optical transfer systems are non-obvious over and patentably distinguishable from Knox et al in view of Ionov, whereby the rejection under 35 U.S.C. §103 has been overcome. Reconsideration is respectfully requested.

It is believed that the above represents a complete response to the Examiner's objections and rejections under 35 U.S.C. §103 and places the present application in

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condition for allowance. Reconsideration and an early allowance are respectfully requested.

Respectfully submitted,

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